



1724

213202.00309

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
BOWIE G. KEEFER, ET AL. ) : Examiner: R.A. Hopkins  
Application No.: 09/886,469 ) : Group Art Unit: 1724  
Filed: June 22, 2001 ) :  
For: GAS SEPARATION WITH )  
SPLIT STREAM : January 22, 2003  
CENTRIFUGAL )  
TURBOMACHINERY )

#6  
1/25/03  
mc

Commissioner for Patents  
Washington, D.C. 20231

TECHNOLOGY CENTER 1700

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RESPONSE TO RESTRICTION REQUIREMENT  
AND PETITION UNDER 37 C.F.R. § 1.136(a)

Sir:

Applicants petition the Commissioner for Patents to extend the time for response to the Restriction Requirement dated August 22, 2002 for four (4) months from September 22, 2002 to January 22, 2003.

In complete response to the Restriction Requirement mailed August 22, 2002, Applicants provisionally elect Group I, Claims 1-49, with traverse.

Regarding the restriction requirement, M.P.E.P. 803 states that an application may be properly restricted to one or more claimed inventions *only* if (1) the inventions are independent or distinctly

claimed, and (2) there is a serious burden on the Examiner if restriction is not required. Thus, even if appropriate reasons exist for requiring restriction, such a requirement should not be made unless there is an undue burden on the Examiner to examine all of the claims in a single application. Consequently, the traversal is on the grounds that a search of the art for one group of claims will necessarily include a search of the art for the other group of claims. It is believed that the burden on the Examiner to examine all claims in a single application is less than the burden on the Applicants/public to prosecute/search more than one application/patent.

1. Re: Group I and Group II Claims

Applicants submit that the subject matter of the Group I claims does not have separate utility from the subject matter of the Group II claims.

The Examiner suggests that the Group II claims have separate utility for the reason that the subject compression machine can be used for changing the pressure of separate gas flows and send such separate gas flows to a filter apparatus. Applicants submit that such utility is not practical. In particular, the features of the compressor, as defined by the Group II claims, are not required for this suggested task. If both streams are transferred to a common single filter, they are not required to be kept separate in the

compressor, nor compressed to different discrete pressure levels. As such, the compressor, as defined by the Group II claims, is unduly complex for the Examiner's suggested utility. Further, and importantly, the filter operation will likely be compromised if two separate gas streams are introduced simultaneously to the filter at different pressures, as there is likely to be excessive turbulence or cavitation due to the mismatched pressure streams.

2. Re: Group I and Group III Claims

Applicants submit that the subject matter of the Group I claims does not have separate utility from the subject matter of the Group III claims.

Applicants submit that the Examiner's suggestion of separate utility is not practical. The Examiner's suggested use, whereby the mixing nozzle covered by the Group III claims could be used to mix gas streams to send to a filter, does not take into account the purpose of the nozzle, which is to recover energy from the expansion of the separate gas streams, such energy then being used to power the pressure swing absorption system, as described in the specification and the Group I claims. In this respect, the nozzle covered by the Group III claims would be overly complex for the utility suggested by the Examiner.

Further, Applicants submit that the use of the nozzle covered by the Group III claims suggested by the Examiner would be impractical. The nozzle includes, *inter alia*, "an impeller rotatably disposed within the nozzle housing". The Examiner's suggested utility does not contemplate the provision of a load for the subject impeller turbine to drive, as would be provided by a generator or gear box that drives the pressure swing absorption system covered under the Group I claims. Because no such load is provided in the Examiner's suggested utility, the impeller of the nozzle of the Group III claims would likely spin out of control and eventually break, resulting in a catastrophic failure of the nozzle device when used as suggested by the Examiner. Accordingly, Applicants submit that the Examiner's suggested utility with respect to the Group III claims is not feasible.

3. Re: Group II and Group III Claims

The Examiner has found that the Group II and Group III claims cannot be considered related. In response, Applicants submit that the subject matter of the Group III claims is related to the subject matter of the Group II claims, because the subject matter of the Group III claims is configured for use with the subject matter of the Group II claims.

The Group III claims are directed to a gas mixing nozzle. The Group II claims are directed to a centrifugal compression machine.

Referring to the specification at page 19, between lines 12 and 32, Applicants submit that the nozzle covered by the Group III claims is configured for use with a centrifugal compression machine. In particular, the specification discloses a mixing nozzle for combining two streams at different inlet pressures into a single stream for introduction into a type of centrifugal compression machine. Accordingly, Applicants submit that the Group II and Group III claims are related and not distinct.

Consequently, the search required for the elected invention would be substantially coextensive, if not identical, to that required for the non-elected invention. As such, a serious burden would not be imposed on the Examiner to examine all of these claims in a single application. Accordingly, it is believed that the burden on the Examiner to search all of the groups of claims is less than the burden on Applicants to prosecute more than one application. Because the search and examination of all of the claims of the present application can be made without placing a serious burden on the Examiner, for at least the reasons set forth above, withdrawal of the Restriction Requirement and examination of all of the claims of the present application, including Claims 1-49 directed to the elected invention, are respectfully requested.

The Commissioner is hereby authorized to charge Deposit Account No. 50-1710 for the \$725.00 extension of time fee. The

Commissioner is also authorized to charge any additional fees due with respect to this filing to Deposit Account No. 50-1710. A duplicate copy of this paper is attached.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3633. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

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